

ABSTRACT OF THE DISCLOSURE

[0096] A well plate and its supporting devices provide capabilities found in larger fermenters, such as controlling the oxygen level, the pH level, and temperature of the contents of the well. The well plate includes a plurality of wells, each of which can be independently controlled. Apertures in the wells, for example, provide access for a gas supply and sensors within each well provide data relating to, e.g., oxygen and/or pH level in the well. A control system controls the gas supply for each well based on the information provided by the sensor within the well. Similarly, temperature control elements, such as a heater or cooler, is placed in thermal contact with the interior of the well, as is a temperature measurement element. A control system can independently control the temperature of the contents of the well based on information provided by the temperature measurement element for that well.